



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,474	10/17/2000	Hiroaki Okamoto	OKAMOTO7	7869

1444 7590 12/18/2002

BROWDY AND NEIMARK, P.L.L.C.  
624 NINTH STREET, NW  
SUITE 300  
WASHINGTON, DC 20001-5303

EXAMINER

WILLS, MONIQUE M

ART UNIT	PAPER NUMBER
----------	--------------

1745

8

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/601,474

Applicant(s)

OKAMOTO ET AL

Examiner

Wills M Monique

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 October 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement(s) filed January 16, 2001 has/have been received and complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609.

### ***Priority***

Foreign priority document(s) Japan 10/35371, filed February 3, 1998 submitted under 35 U.S.C. 119(a)-(d), has/have been received and placed of record in the file.

### ***Claim Objections***

Claims 12 and 13 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend on a multiple dependant claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "perforated pores" is of uncertain meaning, render the claims vague and indefinite. It is unclear as to how pores can be perforated. Further, a metal substrate containing perforated pores appears to be the same as a perforated substrate. Are they different? For the purposes of this rejection, they are considered the same.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2, 4, 6, 9-11, 18 & 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Saijo et al. WO 98/56052.

Saijo teaches a method of forming a protection film of a safety valve comprising a perforated metal substrate 11 and a metal foil 12 laminated on the substrate 11 and covers the perforated pores (Fig. 1 and abstract). The protection film 10 is laminated on the metal substrate and made from an organic resin (col. 5, lines 10-20). The safety valve element is applied on a closing plate 1 for a battery container having a perforated pore 13 which is to be a valve opening of a safety valve so that said perforated pores of the metal substrate 11 and the perforated pore of the closing plate 1 are connected through (Fig. 1). The closing plate is fixed to the metal substrate 11 (col. 4, lines 55-65).

Art Unit: 1745

The battery includes a positive electrode, negative electrode, separator and electrolyte, and the closing plate is fixed around the circumference of the open portion of the battery container to close the battery (Fig. 2 and col. 1, lines 35-45). Claim 1 requires an organic coating on one side of the safety valve, and claim 2, requires an organic resin film laminated on one side of the safety valve. Both limitations are met by Saijo teaching a protection film made from an organic resin and laminated on the metal substrate.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,5,7,8, 14-16,17 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saijo et al. WO 98/56052 as applied to claim 4 above, and further in view of Batson et al. U.S. Patent 6, 001,504.

Saijo teaches a method of forming a protection film as described hereinabove.

The reference does not expressly disclose employing the organic coating on the metal foil, or laser welding the closing plate and the metal substrate.

Batson teaches that it is conventional to employ laser beam welding to the closing plate of a battery in order to enable the use of higher welding heat without seal damage (col. 1, lines 63-68).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ laser welding the closing plate and metal substrate in order to enable the use of higher welding heat without seal damage.

Regarding coating the organic resin on the metal foil, it would have been obvious to one of ordinary skill in the art at the time the invention was made to coat the metal for with an organic resin, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Decker et al. U.S. Patent 3,994,749 teaches a vent valve for nickel-cadmium energy cells. Fumio 02-284349 teaches an organic electrolyte cell.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (703) 305-0073. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

Art Unit: 1745

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Patrick Ryan, may be reached at 703-308-2383.

The unofficial fax number is (703) 305-3599. The Official fax number for non-final amendments is 703-872-9310. The Official fax number for after final amendments is 703-872-9311.

Mw

12/10/02

  
Patrick Ryan  
Supervisory Patent Examiner  
Technology Center 1700